

Human GDF-2/BMP-9 Protein

Cat. No. GDF-HM002

Description

Source	Recombinant Human GDF-2/BMP-9 Protein is expressed from HEK293 without tag. It contains Ser320-Arg429.
Accession	Q9UK05
Molecular Weight	The protein has a predicted MW of 12.08 kDa. Due to glycosylation, the protein migrates to 13-15 kDa based on Bis-Tris PAGE result.
Endotoxin	Less than 1EU per μg by the LAL method.
Purity	> 95% as determined by Bis-Tris PAGE

Formulation and Storage

Formulation	Lyophilized from 0.22 μm filtered solution in 4mM HCL. Normally 8% trehalose is added as protectant before lyophilization.
Reconstitution	Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in 4mM HCL.
Storage	-20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3 months after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles.

Background

Bone morphogenetic proteins (BMPs) are expressed in different cell types of the human ovarian follicle and play important roles in the regulation of ovarian function. BMP-9, also known as growth differentiation factor-2 (GDF-2), belongs to the transforming growth factor-beta (TGF- β) superfamily. BMP-9 is mainly synthesized in the liver and secreted into the blood which allows it to regulate various physiological and pathological functions.

Assay Data

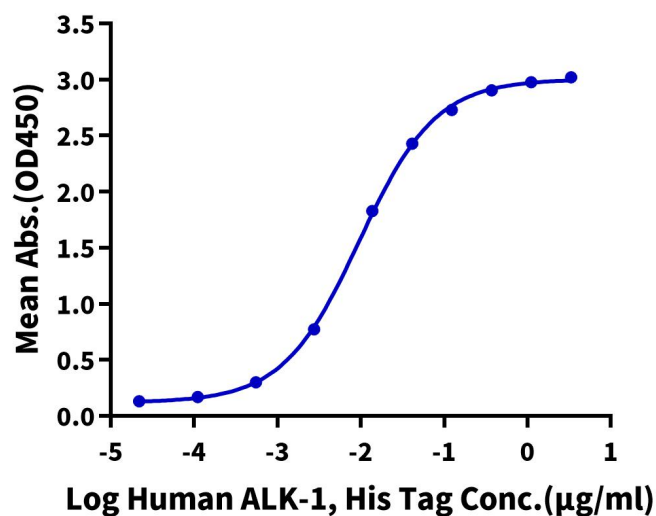
Bis-Tris PAGE



Human GDF-2 on Bis-Tris PAGE under reduced condition. The purity is greater than 95%.

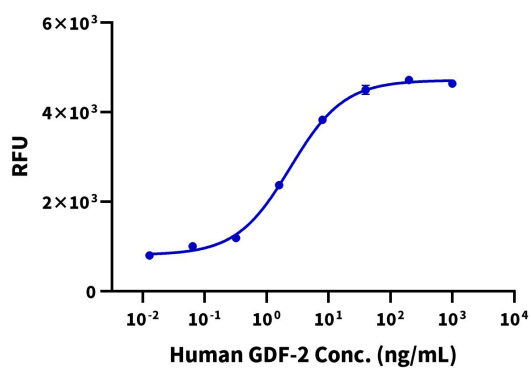
ELISA Data

Assay Data

Human GDF-2, No Tag ELISA0.2 μ g Human GDF-2, No Tag Per Well

Immobilized Human GDF-2, No Tag at 2 μ g/ml (100 μ l/well) on the plate. Dose response curve for Human ALK-1, His Tag with the EC50 of 9.6 ng/ml determined by ELISA.

Cell Based Assay

Recombinant Human GDF-2 Bioactivity

Measured by its ability to induce alkaline phosphatase production by ATDC5 mouse chondrogenic cells. The ED50 for this effect is 0.4-1.6 ng/mL (QC Test).